MULTIPLE SIMULTANEOUS WIRELESS CONNECTIONS
IN A WIRELES LOCAL AREA NETWORK

ABSTRACT

Multiple simultaneous associations with Wireless Access Points (WAPs) may be formed by a given wireless client to enable handoffs between the WAPs to be accelerated and, optionally, to enable both WAPs to provide simultaneous wireless services to the wireless client. Upon forming a primary association with one WAP the wireless client scans for beacon signals from other WAPs. Upon detecting another WAP, the wireless client transmits a Request To Send (RTS) message to the new WAP indicating the identity of the primary WAP. The wireless client may also identify the new WAP to the primary WAP using a RTS message. The primary and secondary WAPs exchange information so that, in the event of a handoff, the required information has already been shared with the new WAP. Optionally, the several WAPs may provide simultaneous service to the wireless client.